

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

1. (Currently amended) A method of inhibiting cell growth comprising introducing into a cell an effective amount of

_____ (i) one or more agnoproteins, [[or]]

_____ (ii) one or more biologically active fragments of agnoprotein, wherein said one or more fragments comprise amino acid residues 1-36 of SEQ ID NO: 1, or

_____ (iii) one or more derivatives of agnoprotein, wherein the amino acid sequence of said one or more derivatives have at least about 83% sequence identity to SEQ ID NO: 1, and wherein said one or more derivatives have cell growth inhibitory activity,
such that growth of the cell is inhibited.

2. (Original) The method of claim 1, wherein the cells are abnormally proliferating cells.

3. (Original) The method of claim 2, wherein the abnormally proliferating cells are cancer cells.

4. (Original) The method of claim 2, wherein the abnormally proliferating cells are fibroblasts.

5. (Original) The method of claim 1 wherein the agnoprotein comprises a JCV agnoprotein.

6. (Original) The method of claim 1, wherein the JCV agnoprotein is selected from the group consisting of SEQ ID NO: 1; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5; SEQ ID NO: 6; and SEQ ID NO: 7.

7. (Currently amended) The method of claim 1 wherein the agnoprotein comprises a protein having the amino acid sequence:

M-V-L-R-Q-L-S-R-K-A-S-V-K-V-S-K-T-W-S-G-T-K-K-R-A-Q-R-I-L-I-F-L-L-E-F-L-L-D-F-C-T-G-E-D-X₁-V-D-G-K-K-R-Q-X₂-H-X₃-X₄-X₅-X₆-X₇-X₈-X₉-X₁₀-X₁₁-A-L-P-E-P-K-A-X₁₂ (SEQ ID NO: 13),

wherein

- X₁ is serine or arginine;
- X₂ is lysine or arginine;
- X₃ is serine or arginine;
- X₄ is glycine or no amino acid;
- X₅ is leucine or no amino acid;
- X₆ is threonine or no amino acid;
- X₇ is glutamine, glutamic acid, or no amino acid;
- X₈ is glutamine or no amino acid;
- X₉ is threonine, arginine, lysine or no amino acid;
- X₁₀ is tyrosine or no amino acid; X₁₁ is serine or glycine; and
- X₁₂ is threonine or lysine.

8. (Original) The method of claim 1 wherein the agnoprotein comprises BK virus agnoprotein or SV40 agnoprotein.

9. (Original) The method of claim 8, wherein the BK virus agnoprotein is selected from the group consisting of SEQ ID NO: 14 and SEQ ID NO: 15.

10. (Original) The method of claim 8, wherein the SV40 agnoprotein comprises SEQ ID NO: 17.

11. (Original) The method of claim 1, wherein the agnoprotein derivative comprises SEQ ID NO: 22.

12. (Currently amended) A method of treating a subject having a ~~cancer or non-cancerous proliferative disorder~~ glioblastoma, comprising administering to the subject an effective amount of

_____ (i) one or more agnoproteins, [[or]]

_____ (ii) one or more biologically active fragments of agnoprotein, wherein said one or more fragments comprise amino acid residues 1-36 of SEQ ID NO: 1, or

_____ (iii) one or more derivatives of agnoprotein, wherein the amino acid sequence of said one or more derivatives have at least about 83% sequence identity to SEQ ID NO: 1, and wherein said one or more derivatives have cell growth inhibitory activity,
such that growth of [[the]] cells deriving from the ~~cancer or non-cancerous cells~~ glioblastoma is inhibited.

13-17. (Canceled)

18. (Original) The method of claim 12, wherein the one or more agnoproteins, or the one or more biologically active fragments or derivatives of agnoprotein, is administered by direct injection into a tissue comprising the cells deriving from a ~~cancer or a non-cancerous proliferative disorder~~ glioblastoma.

19. (Original) The method of claim 12, wherein the agnoprotein comprises a JCV agnoprotein.

20. (Original) The method of claim 12, wherein the JCV agnoprotein is selected from the group consisting of SEQ ID NO: 1; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5; SEQ ID NO: 6 and SEQ ID NO: 7.

21. (Currently amended) The method of claim 12 wherein the agnoprotein comprises a protein having the amino acid sequence:

M-V-L-R-Q-L-S-R-K-A-S-V-K-V-S-K-T-W-S-G-T-K-K-R-A-Q-R-I-L-I-F-L-L-E-F-L-L-D-F-C-T-G-E-D-X₁-V-D-G-K-K-R-Q-X₂-H-X₃-X₄-X₅-X₆-X₇-X₈-X₉-X₁₀-X₁₁-A-L-P-E-P-K-A-X₁₂ (SEQ ID NO: 13),

wherein X₁ is serine or arginine;
 X₂ is lysine or arginine;
 X₃ is serine or arginine;
 X₄ is glycine or no amino acid;
 X₅ is leucine or no amino acid;
 X₆ is threonine or no amino acid;
 X₇ is glutamine, glutamic acid, or no amino acid;
 X₈ is glutamine or no amino acid;
 X₉ is threonine, arginine, lysine or no amino acid;
 X₁₀ is tyrosine or no amino acid;
 X₁₁ is serine or glycine; and
 X₁₂ is threonine or lysine.

22. (Original) The method of claim 12 wherein the agnoprotein comprises a BK virus agnoprotein or SV40 agnoprotein.

23. (Original) The method of claim 22, wherein the BK virus agnoprotein is selected from the group consisting of SEQ ID NO: 14 and SEQ ID NO: 15.

24. (Original) The method of claim 22, wherein the SV40 agnoprotein comprises SEQ ID NO: 17.

25. (Original) The method of claim 12, wherein the agnoprotein derivative comprises SEQ ID NO: 22.

26-27. (Canceled)